

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 February 2005 (03.02.2005)

PCT

(10) International Publication Number
WO 2005/010552 A1

(51) International Patent Classification⁷: **G01S 11/14**

(21) International Application Number:

PCT/KR2004/001917

(22) International Filing Date: 29 July 2004 (29.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10-2003-0052239 29 July 2003 (29.07.2003) KR

(71) Applicants and

(72) Inventors: AN, Heul Tay [KR/KR]; Geumkang Apt. 2-507, 278-1 Bugok 2-dong, Geumjeong-gu, Busan 609-822 (KR). LEE, Dong Hwal [KR/KR]; LG Metrocity 2cha Apt. 133-901, Yongho 1-dong, Nam-gu, Busan 608-890 (KR). KANG, Young Shin [KR/KR]; Byeoksan Apt. 106-1401, 188, Hwamyong-dong, Buk-gu, Busan 616-120 (KR).

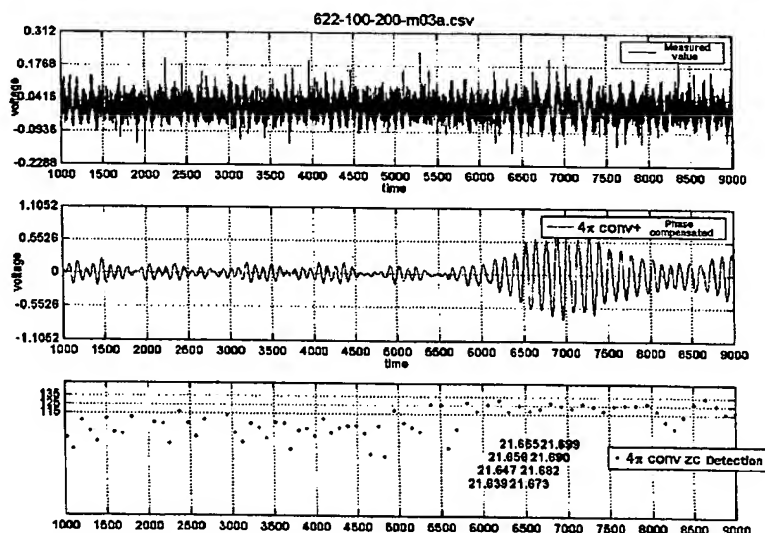
(74) Agent: BAEG, Seung Jun; Chungjo Building 301, 33-1 2-ka, Daechang-dong, Jung-gu, Busan 600-102 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

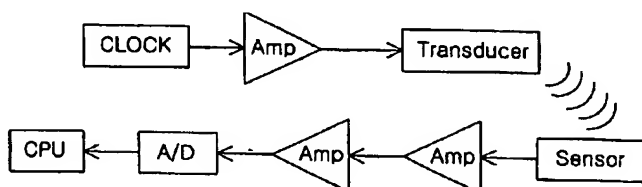
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: DISTANCE MEASUREMENT METHOD AND DEVICE USING ULTRASONIC WAVES



(57) Abstract: The present invention provides a distance measurement method and device using ultrasonic waves. The present invention includes sufficiently amplifying a received ultrasonic wave signal and separating a specific frequency from an ultrasonic wave signal mixed with an unnecessary signal to extract an arrival signal of a first pulse. It is thus possible to calculate a distance of an object safely.





SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*